

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended) A data sending/receiving device for issuing a digital certificate to a new data sending/receiving device, when the data sending/receiving device causes the new data sending/receiving device to participate in a wireless network formed by a plurality of data sending/receiving devices each having a digital certificate that certifies authority to participate in the wireless network; the data sending/receiving device comprising:

a first communication section which performs wireless communication in the wireless network;

a second communication section, to which the new data sending/receiving device can be connected by a wired connection means; and

a control section which performs a dynamic-process of issuing the digital certificate for the new data sending/receiving device through the wired connection means to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate; wherein

when the new data sending/receiving device is connected to the second communication section, the control section judges whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network, in accordance with device type information of the new data sending/receiving device received via the second communication section from the new data sending/receiving device, and

if the new data sending/receiving device is judged as a device having athe communication means that can communicate in the wireless network, the control section creates the digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device, the device identifier being received via the second communication section from the new data sending/receiving device through the wired connection means, and sends the created digital certificate via the second communication section to the new data sending/receiving device through the wired connection means.

Claim 2. (Currently Amended) The data sending/receiving device according to claim 1, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network, if the new data sending/receiving device already has a digital certificate, the control section does not issue a new digital certificate.

Claim 3. (Currently Amended) The data sending/receiving device according to claim 1, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network and the new data sending/receiving device already has a digital certificate, if the digital certificate that is already held in the new data sending/receiving device is for another network different from the wireless network, the control section creates a digital certificate for the new data sending/receiving device by using the device identifier and sends the created digital certificate through the wired connection means to the new data sending/receiving device.

Claim 4. (Currently Amended) A data sending/receiving device for issuing a digital certificate to a new data sending/receiving device, when the data sending/receiving device causes the new data sending/receiving device to participate in a wireless network formed by a plurality of data sending/receiving devices including said data sending/receiving device and another data sending/receiving device each having a digital certificate that certifies authority to participate in the wireless network; the data sending/receiving device comprising:

a first communication section which performs wireless communication in the wireless network; and

a control section which performs a dynamic process of issuing the digital certificate through the wired connection means to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate; wherein

when the new data sending/receiving device is connected to a second communication section of said another data sending/receiving device by a wired connection means, the control section of said data sending/receiving device judges whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network, in accordance with device type information of the new data sending/receiving device received via a second communication section of said another data sending/receiving device through the wired connection means from the new data sending/receiving device; and

if the new data sending/receiving device is judged as a device having a communication means that can communicate in the wireless network, the control section of said data sending/receiving device creates a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device, the device identifier being received through the wired connection means via the said another data sending/receiving device to which the new data sending/receiving device is connected ~~and via the communication section~~ from the new data sending/receiving device, and controls to send the created digital certificate through the wired connection means ~~via the communication section and via the said another~~ data sending/receiving device to which the new data sending/receiving device is connected.

Claim 5. (Currently Amended) The data sending/receiving device according to claim 4, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network, if the new data sending/receiving device already has a digital certificate, the control section does not issue a new digital certificate.

Claim 6. (Currently Amended) The data sending/receiving device according to claim 4, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network and the new data sending/receiving device already has a digital certificate, if the digital

certificate that is already held in the new data sending/receiving device is for another network different from the wireless network, the control section creates a digital certificate for the new data sending/receiving device by using the device identifier and sends the created digital certificate through said another data sending/receiving device and the wireless connection means to the new data sending/receiving device.

Claim 7. (Currently Amended) A digital certificate issuing method for issuing a digital certificate to a new data sending/receiving device when the new data sending/receiving device participates in a wireless network formed by a plurality of data sending/receiving devices each having a digital certificate that certifies authority to participate in the wireless network, the method comprising the steps of:

connecting the new data sending/receiving device through a wired connection means to a certain data sending/receiving device participating in the wireless network ~~in order to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate;~~

judging by a certain data sending/receiving device, whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network in accordance with device type information of the new data sending/receiving device received through the wired connection means from the new data sending/receiving device; and

if the new data sending/receiving device is judged as being a device having a communication means that can communicate in the wireless network, creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received from the new data sending/receiving device through the wired connection means and sending the created digital certificate to the new data sending/receiving device through the wired connection means, by the certain data sending/receiving device.

Claim 8. (Currently Amended) The digital certificate issuing method according to

claim 7, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network, if the new data sending/receiving device already has a digital certificate, a new digital certificate is not issued.

Claim 9. (Currently Amended) The digital certificate issuing method according to claim 7, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network and the new data sending/receiving device already has a digital certificate, if the digital certificate that is already held in the new data sending/receiving device is for another network different from the wireless network, the creating of a digital certificate for the new data sending/receiving device by using the device identifier and the sending of the created digital certificate through the wired connection means to the new data sending/receiving device are performed.

Claim 10. (Original) The digital certificate issuing method according to claim 7, wherein the new data sending/receiving device verifies validity of the received digital certificate,

if it is confirmed that the validity exists, the new data sending/receiving device notifies the data sending/receiving device which has issued the digital certificate that the digital certificate has been accepted, and

if it is not confirmed that the validity exists, the new data sending/receiving device requests the data sending/receiving device which has issued the digital certificate to issue a digital certificate again.

Claim 11. (Currently Amended) A digital certificate issuing method for issuing a digital certificate to a new data sending/receiving device when the new data sending/receiving device participates in a wireless network formed by a plurality of data sending/receiving devices including at least a first data sending/receiving device and a

second data sending/receiving device each having a digital certificate that certifies authority to participate in the wireless network, the method comprising the steps of:

connecting the new data sending/receiving device through a wired connection means to ~~a certain the~~ second data sending/receiving device participating in the wireless network ~~in order to enable a secure communication protocol before the creation of the digital certification for the individual digital certificate;~~

judging, by ~~one of the~~ first data sending/receiving devices ~~device~~ forming the wireless network, whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network in accordance with device type information of the new data sending/receiving device received through the wired connection means and the second data sending/receiving device from the new data sending/receiving device; and

if the ~~one of the~~ first data sending/receiving devices ~~device~~ forming the network, which is other than the second data sending/receiving device to which the new data sending/receiving device is connected through the wired connection means, judges that the new data sending/receiving device is judged as being a device having a communication means that can communicate in the wireless network, creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received via the second data sending/receiving device, to which the new data sending/receiving device is connected through the wired connection means, from the new data sending/receiving device and sending the created digital certificate via the second data sending/receiving device, to which the new data sending/receiving device is connected through the wired connection means, to the new data sending/receiving device, by ~~the one of the~~ first data sending/receiving devices ~~device~~.

Claim 12. (Currently Amended) The digital certificate issuing method according to claim 11, wherein even when the new data sending/receiving device is judged as being a device having a communication means which can participate in the wireless network, if the new data sending/receiving device already has a digital certificate, a new digital

certificate is not issued.

Claim 13. (Currently Amended) The digital certificate issuing method according to claim 11, wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network and the new data sending/receiving device already has a digital certificate, if the digital certificate that is already held in the new data sending/receiving device is for another network different from the wireless network, the creating of a digital certificate for the new data sending/receiving device by using the device identifier and the sending of the created digital certificate to the new data sending/receiving device are performed.

Claim 14. (Original) The digital certificate issuing method according to claim 11, wherein the new data sending/receiving device verifies validity of the received digital certificate,

if it is confirmed that the validity exists, the new data sending/receiving device notifies the data sending/receiving device which has issued the digital certificate that the digital certificate has been accepted, and

if it is not confirmed that the validity exists, the new data sending/receiving device requests the data sending/receiving device which has issued the digital certificate to issue a digital certificate again.

Claim 15. (Currently Amended) A computer readable storage medium having thereon computer executable program for performing a ~~dynamic~~-process of issuing the digital certificate through a wired connection means creating a wireless network, the computer program when executed causes a processor to execute steps of:

judging by a certain data sending/receiving device that is one of the data sending/receiving devices forming the wireless network and is connected through a wired connection means to the new data sending/receiving device, whether or not the new data sending/receiving device is a device having a communication means that communicates in

the wireless network in accordance with device type information having the new data sending/receiving device received through the wired connection means from the new data sending/receiving device; and

if the new data sending/receiving device is judged as being a device having a communication means that can communicate in the wireless network, creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received through the wired connection means from the new data sending/receiving device and sending the created digital certificate through the wired connection means to the new data sending/receiving device, by the certain data sending/receiving device.